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REVIEW ARTICLE

Clinical practice guideline on atraumatic (pencil-point) vs conventional needles for lumbar puncture: Endorsement by the Scandinavian Society of Anaesthesiology and Intensive Care Medicine

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The Scandinavian Society of Anaesthesiology and Intensive Care Medicine Clinical Practice Committee endorses the BMJ Rapid Recommendation clinical practice guideline on atraumatic (pencil-point) vs conventional needles for lumbar puncture. This includes the strong recommendation for the use of atraumatic needles for lumbar puncture in all patients regardless of age or indication.

1 | BACKGROUND

Anaesthesiologists and intensivists regularly perform lumbar punctures for therapeutic or diagnostic purposes. A common

complication after lumbar puncture is sustained leakage of cerebrospinal fluid from a dural tear potentially causing debilitating post-dural-puncture headache.¹ It is recognized that needle design may

influence cerebrospinal fluid leakage from the dural defect that is created during the puncture.²

In May 2018, Rochwerf et al³ published a *BMJ* Rapid Recommendation clinical practice guideline on atraumatic (pencil-point) vs conventional needles for lumbar puncture.

The Scandinavian Society of Anaesthesiology and Intensive Care Medicine (SSAI) Clinical Practice Committee (CPC) decided to appraise this guideline for possible endorsement to guide Scandinavian anaesthesiologists and intensivists in choice of atraumatic (pencil-point) vs conventional needles for lumbar puncture.

2 | METHODS

The SSAI CPC assessed the guideline using the Appraisal of Guidelines for REsearch and Evaluation (AGREE) II tool,⁴ as per the outlined process for endorsement of non-SSAI guidelines (Figure S1).

3 | RESULTS

3.1 | Quality appraisal (AGREE II)

Five SSAI CPC members completed the appraisal. One member co-authored the guideline and was excluded from the evaluation (Figure S1).

The individual domain totals were: (a) scope and purpose 86%; (b) stakeholder involvement 91%; (c) rigor of development 87%; (d) clarity of presentation 94%; (e) applicability 78%; (f) editorial independence 98%; and (g) overall assessment 93%.

The breakdown of the individual appraisers (de-identified) is available in the Supporting information.

4 | DISCUSSION

This clinical practice guideline on atraumatic (pencil-point) vs conventional needles for lumbar puncture achieved overall high ratings on all domains with acceptable agreement between the SSAI CPC appraisers.

5 | CONCLUSION

The SSAI CPC endorses the *BMJ* Rapid Recommendation clinical practice guideline on atraumatic (pencil-point) vs conventional needles for lumbar puncture,³ including the strong recommendation for

the use of atraumatic needles for lumbar puncture in all patients regardless of age or indication.

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None.

CONFLICT OF INTEREST

No Clinical Practice Committee member had direct conflicts of interest. MHM was a co-author of the guideline assessed and did not participate in the AGREE II assessment, as per the SSAI endorsement process. No other authors had indirect conflicts of interest.

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REFERENCES

1. Lavi R, Yarnitsky D, Rowe JM, Weissman A, Segal D, Avivi I. Standard vs atraumatic Whitacre needle for diagnostic lumbar puncture: a randomized trial. *Neurology*. 2006;67:1492-1494.
2. Nath S, Kozlars A, Badhiwala JH, et al. Atraumatic versus conventional lumbar puncture needles: a systematic review and meta-analysis. *Lancet*. 2018;391:1197-1204.
3. Rochwerf B, Almenawer SA, Siemieniuk R, et al. Atraumatic (pencil-point) versus conventional needles for lumbar puncture: a clinical practice guideline. *BMJ*. 2018;361:k1920.
4. Brouwers MC, Kho ME, Browman GP, et al. AGREE II: advancing guideline development, reporting and evaluation in health care. *CMAJ*. 2010;182:E839-E842.

SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

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